National Foundation Phase Maths Olympiad - Answer sheet template
Template for the answer sheet for maths olympiads

INSTITUTE FOR ADVANCEMENT OF MATHEMATICS AND SCIENCE (IAMS) NATIONAL FOUNDATION PHASE MATHEMATICS OLYMPIAD
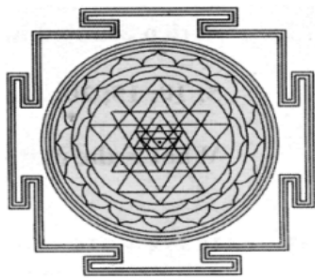
ANSWER SHEET

NAME OF LEARNER:_____

GRADE:_____

Circle the correct answer after doing your working.

1		A	B	C
2		A	B	C
3		A	B	C
4		A	B	C

5		A	B	C
6		A	B	C
7		A	B	C
8		A	B	C
9		A	B	C
10		A	B	C
11		A	B	C
12		A	B	C
13		A	B	C
14		A	B	C
15		A	B	C

MARKS: Numbers 1-10: 10 x 1 = 10

Numbers 11-15 : 5 x 2 = 10 (TOTAL: 20)

National Foundation Phase Maths Olympiad - Grade three - final round - 2006
Olympiad questions for grade three maths

INSTITUTE FOR ADVANCEMENT OF MATHEMATICS AND SCIENCE (IAMS) NATIONAL FOUNDATION PHASE MATHEMATICS OLYMPIAD

GRADE THREE – FINAL ROUND PAPER: 2006 QUESTION BOOKLET

DURATION: 1 HOUR 15 MINUTES

MARKS: 20

NAME OF LEARNER:_____

NAME OF SCHOOL:_____

INSTRUCTIONS TO LEARNERS:

1. You are expected to answer 15 questions.

2. These are multiple choice questions. Circle the correct answer.

3. Use blank pages for working. Circle the answer after you have done the working.

4. You are not allowed to use the calculator.

5. Read the question carefully before answering. Don't rush.

6. Your teacher will read the question to you.

7. First 10 questions – 1 mark each.

8. Questions 11-20: 2 marks each.

ENJOY THE OLYMPIAD

Test Questions:

Exercise 1

What is the 12th number of this sequence?

5 ; 9; 13 ; 17 ; . . .

Exercise 2

Virginia counted in 3's as follows:

3; 6; 9; 12; . . .

She stopped at the 51st number.What number did she count last?

Exercise 3

Find the value of Δ:
Equation:

$$\Delta + \Delta + \Delta - O = 24 + \Delta - O$$

Exercise 4

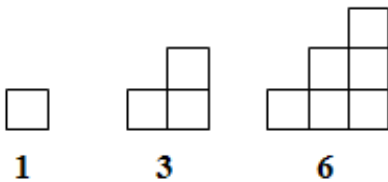Each letter in the following subtraction problem represents a digit. What is the value of B?

```
   A A
-  B 8
   2 8
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Exercise 5

Mandy said that $\frac{3}{4}$ of the total number of health biscuits is 33. What is the total number of health biscuits?
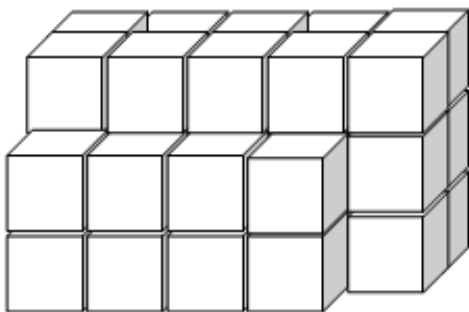
Exercise 6

Matchsticks are used to make the following blocks:

How many blocks are there in the 9^{th} figure?

Exercise 7

How many blocks are there in this stack?

Exercise 8

4 different counting numbers (starting from 1) were added to give 56 . What is the largest possible number that could have been added ?

Exercise 9

Ben makes 3 paper jets in 10 minutes. Victoria makes 4 paper jets in 20 minutes. If both work together and at the same rate then how many paper jets could be made in 1 hour?

Exercise 10

Guess the number I stand for.

* I am a 3 digit number.

* My unit's digit is 3 more than my hundred's digit.

* My ten's digit is the same as my unit's digit.

* The sum of my digits is 18.

Exercise 11

Try to work out what * is doing to the 2 numbers.

3 * 1 = 5

4 * 4 = 4

3 * 3 = 3
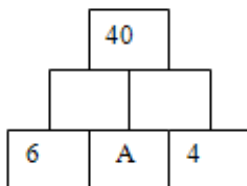
6 * 2 = 10

Now find the answer to :

9 * 3

Exercise 12

In the following game the rule is double the number in the left block and add to the number in the right block to give the number in the block above it.

Find the number in block A.

Exercise 13

Given the following information, who is the tallest?

Al is shorter than Sipho.

Jerry is taller than Frank.

Frank is taller than Al.

Exercise 14

Calculate:

100 − 98 + 96 - 94 + 92 - 90 + . . . + 4 − 2.

Exercise 15

There are 4 envelopes.

* Envelope 2 has R6 more than envelope 1.

* Envelope 3 has R6 more than envelope 2.

* Envelope 4 has R6 more than envelope 3.

There is a total of R196 in the four envelopes.

Determine the amount of money in envelope 1.

National Foundation Phase Maths Olympiad - Grade three - final round- 2007
Olympiad questions for grade 3

INSTITUTE FOR ADVANCEMENT OF MATHEMATICS AND SCIENCE (IAMS) NATIONAL FOUNDATION PHASE MATHEMATICS OLYMPIAD

GRADE THREE – FINAL ROUND PAPER: 2007 QUESTION BOOKLET

DURATION: 1 HOUR 15 MINUTES

MARKS: 20

NAME OF LEARNER:_____

NAME OF SCHOOL:_____

INSTRUCTIONS TO LEARNERS:

1. You are expected to answer 15 questions.

2. Use the answer booklet for your answers.

3. Use the space provided for your working.

4. You are not allowed to use the calculator.

5. Read the question carefully before answering. Don't rush.

6. Your teacher will read the question to you.

7. First 10 questions – 1 mark each.

8. Questions 11-20: 2 marks each.

Test Questions:

Exercise 1

What is the 15th number of this sequence ?

7 ; 12; 17 ; 22 ; . . .

Exercise 2

Virginia counted in 4's as follows:

4; 8; 12; 16; . . .

She stopped at the 64th number. What number did she count last?

Exercise 3

Find the value of   :
Equation:

Exercise 4

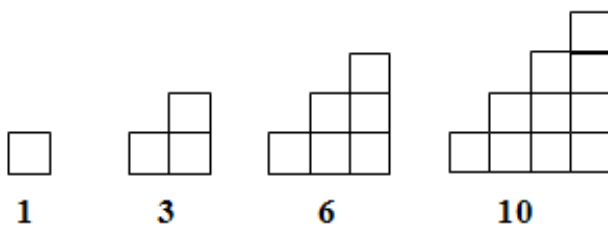Each letter in the following subtraction problem represents a digit. What is the value of A?

```
    A A A
-   B 7 B
    1 8 2
```

Exercise 5

Sally said that — of the health biscuits is 27. What is half the number of health biscuits ?

Exercise 6
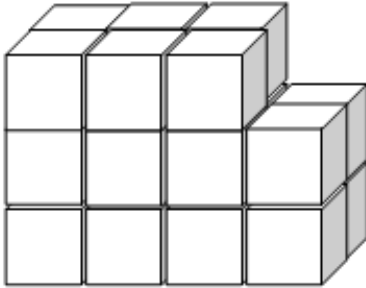
Matchsticks were used to make the following blocks:

1   3   6   10

How many blocks are there in the 10th figure?

Exercise 7

How many blocks are there in this stack?

Exercise 8

5 different counting numbers (starting from 4) were added to give 70. What is the largest possible number that could have been added?

Exercise 9

Liz makes 4 cones in 9 minutes. Taz makes 5 cones in 12 minutes. If both work together and at the same rate then how many cones could be made in 72 minutes.

Exercise 10

Guess the number I stand for:

* I am a 3 digit number.

* My unit's digit is 1 more than my ten's digit.

* My hundred's digit is 1 less than twice the ten's digit.

* The sum of my digits is 12.

Exercise 11

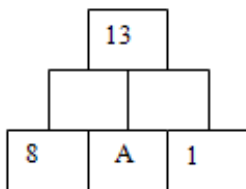Try to work out what * is doing to the 2 numbers.

5 * 4 = 7

1 * 1 = 2

2 * 3 = 2

5 # 5= 6

Now find the answer to:

10 * 5

Exercise 12

In the following game the rule is double the number in the left block and subtract the number in the right block to give the number in the block above it.

Find the number in block A.

Exercise 13

Prince collected R20 more than Fred.

Bessy collected R20 less than Jenny.

Fred collected R10 less than Jenny.

Who collected the most money for charity?

Exercise 14

Calculate:

10+11+12+13+14+………+48+49+50.

Exercise 15

Guess the mystery number in box 3, using the information given:

1		2		3		4

* The number in box 3 is twice the number in box 1.

* The number in box 2 is 6 more than box 3.

* The number in box 4 is 3 less than half the number in box 3.

* The sum of the numbers in all 4 boxes is 75.

INSTITUTE FOR ADVANCEMENT OF MATHEMATICS AND SCIENCE (IAMS) NATIONAL FOUNDATION PHASE MATHEMATICS OLYMPIAD

GRADE THREE – PILOT PAPER QUESTION BOOKLET

DURATION: 1 HOUR 15 MINUTES

MARKS: 20

NAME OF LEARNER:_____

NAME OF SCHOOL:_____

INSTRUCTIONS TO LEARNERS:

1. You are expected to answer 15 questions.

2. These are multiple choice questions. Circle the correct answer.

3. Use blank pages for working. Circle the answer after you have done the working.

4. You are not allowed to use the calculator.

5. Read the question carefully before answering. Don't rush.

6. Your teacher will read the question to you.

7. First 10 questions – 1 mark each.

8. Questions 11-20: 2 marks each.

ENJOY THE OLYMPIAD

Test Questions:

Exercise 1

Find the value of Δ to make this sentence true:

$6 + \Delta + 10 = 20$

(A) 4 (B) 5 (C) 6

Exercise 2

My cellphone number is 083 591 5935. The sum of the digits of my cellphone number is…

(A) 46 (B) 48 (C) 50

Exercise 3

Write down the 6th number of this pretty number pattern:

7; 10; 13; 16;…

(A) 20 (B) 21 (C) 22

Exercise 4

Temba counted in 2's as follows:-

2; 4; 6; 8;….

He stopped at the 51st number. What number did he count last ?

(A) 100 (B) 102 (C) 104

Exercise 5

Which number is out of order ?

1; 2; 4; 7; 16; 22; 11; 29.

(A) 11 (B) 22 (C) 29

Exercise 6

Mpume needs R95 to buy a mathematics game. She had one R50 note, three R10 notes and a R5 coin.

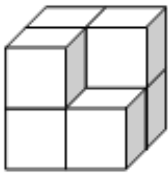How much more does she need to buy this game ?

(A) 5 (B) 10 (C) 20

Exercise 7

Jeremy receives R14 every week as spending money.How much money does he receive in one month (4 weeks)?

(A) 56 (B) 60 (C) 64

Exercise 8

The total number of cubes in this arrangement is…

(A) 5 (B) 6 (C) 7

Exercise 9

If $10 \times \Delta = 80$ then what is $5 \times \Delta$?

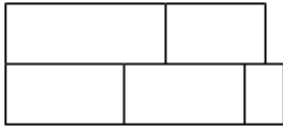(A) 20 (B) 40 (C) 6

Exercise 10

How many numbers in the rectangles below give an answer less than 300 when multiplied by 10 ?

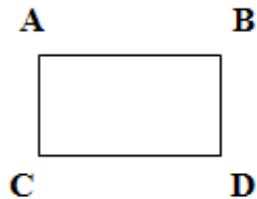| 22 | 34 | 19 | 28 | 41 |

(A) 1 (B) 2 (C) 3

Exercise 11

How many rectangles of all sizes are there in this figure?

(A) 11 (B) 9 (C) 7

Exercise 12

There are 24 trees on each of sides AB and CD. There are 18 trees on each of sides AC and BD. At each corner A;B:C and D there is a tree. The total number of trees in this arrangement is…

(A) 42 (B) 80 (C) 84

Exercise 13

In the game below no number must appear more than once in a row or column. Use only 2; 3 and 4. What number would be at X?

2	4	
4	3	
		X

(A) 2 (B) 3 (C) 2

Exercise 14

Guess the number I stand for:

* I am a 3 digit number.

* My unit's digit is 3 more than my ten's digit.

* The sum of my digits is 17.

* My ten's digit is 2 less than my hundred's digit.

(A) 358 (B) 647 (C) 467

Exercise 15

Each of four girls play only one type of sport.The types that are played are ; soccer; netball; volleyball and basketball.

* Sandy does not play soccer.

* Penny does not like volleyball and basketball.

* Lindiwe plays netball.

* Devi used to play basketball.

Who plays basketball ?

(A) Devi (B) Sandy (C) Penny

National Foundation Phase Maths Olympiad - Grade three - round 1 - 2007
Maths olympiad questions for grade three

INSTITUTE FOR ADVANCEMENT OF MATHEMATICS AND SCIENCE (IAMS) NATIONAL FOUNDATION PHASE MATHEMATICS OLYMPIAD

GRADE THREE – ROUND ONE PAPER: 2007 QUESTION BOOKLET

DURATION: 1 HOUR 15 MINUTES

MARKS: 20

NAME OF LEARNER:⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

NAME OF SCHOOL:⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

INSTRUCTIONS TO LEARNERS:

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5. Read the question carefully before answering. Don't rush.

6. Your teacher will read the question to you.

7. First 10 questions – 1 mark each.

8. Questions 11-20: 2 marks each.

ENJOY THE OLYMPIAD

Test Questions:

Exercise 1

Find the value of Δ to make this sentence true:
Equation:

$$40 - \Delta - 8 = 20$$

(A) 10 (B) 11 (C) 12

Exercise 2

My cellphone number is 0833571267. The sum of the digits of my cellphone number is:

(A) 40 (B) 41 (C) 42

Exercise 3

Write down the 7th number of this pretty number pattern:

6; 11; 16; 21...

(A) 36 (B) 41 (C) 46

Exercise 4

Thelma counted in 3's as follows:

3; 6; 9; 12...

She stopped at the 31st number. What number did she count last?

(A) 87 (B) 90 (C) 93

Exercise 5

Which number is out of order?

2; 5; 9; 20; 14; 27

(A) 9 (B) 14 (C) 20

Exercise 6

Harry needs R215 to buy a game. He has two R50 notes, three R20 notes and a R5 coin. How much more does he need to buy this game?
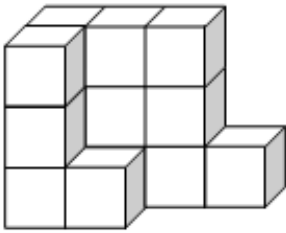
(A) 40 (B) 50 (C) 60

Exercise 7

Harry receives R36 every week as spending money. How much money does he receive in one month (4 weeks)?

(A) 144 (B) 152 (C) 160

Exercise 8

The total number of cubes in this arrangement is

(A) 12 (B) 13 (C) 14

Exercise 9

If $4 \times \Delta = 65$ then:

$8 \times \Delta$ is

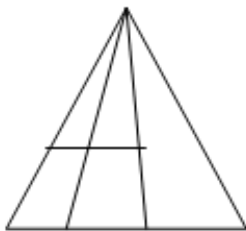(A) 120 (B) 130 (C) 140

Exercise 10

How many numbers in the rectangles below give an answer of more than 200 when multiplied by 5 ?

40	36	68	24	79

(A) 2 (B) 3 (C) 4

Exercise 11

How many triangles of all sizes are there in this figure?

(A) 8 (B) 9 (C) 10

Exercise 12

Guess the number I stand for:

X	Y	Z

* I am a 3 digit number.

* Y is 3 less than X multiplied by Z.

* X + Y + Z = 14

(A) 394 (B) 296 (C) 275

Exercise 13

For every 3 red beads in a chain there are 2 green beads.

RRRGGRRRGGRRRGGRRR...

The chain has 70 beads. How many red beads does this chain have?

(A) 28 (B) 40 (C) 42

Exercise 14

There are 4 girls: Amy, Claire, Diane and Bess. Each of the 4 girls participates in one activity only. The activities are swimming; chess; dancing and art.

* Amy does not swim.

* Claire used to play chess and does not like dancing.

* Diane does not like dancing.

* Bess does well in art.

Who takes part in chess?

(A) Diane (B) Claire (C) Amy

Exercise 15

In the game below no number must appear more than once in a row or column. Use only 1; 2; 3; 4; 5. What is X + Y?

Y	1	X		
	4			
2		4		1
1	3			5
4			1	3

(A) 7 (B) 8 (C) 9